



Analytics Institute
of Australia

BACHELOR OF ANALYTICS

Course CRICOS Code: 11123K

www.analyticsinstitute.edu.au



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FROM THE DIRECTORS



FOREWORD FROM THE AIA FOUNDER – **MR. PANKAJ GOEL**

Establishing the Analytics Institute of Australia has been a long held dream for me. Analytics is the pulse of future private and public sector organisations. I am pleased to make a long-term investment in a boutique higher education provider which operates at the forefront of new disciplines that will change the world and people's lives.

With advisers, governance and staff of the highest quality, we are creating something that is unique and lasting.

WELCOME FROM THE CHAIR OF THE BOARD – **EMERITUS PROFESSOR JAYNE GODFREY**



Welcome to the Analytics Institute of Australia.

This is an exciting venture to lead. The world is on the cusp of dramatic change due to new technologies and the intertwining of human and artificial intelligence.

The Institute will help you thrive in tomorrow's world by equipping you with knowledge, techniques and skills for the lives, jobs and organisations of the future.





WELCOME FROM THE CHAIR OF ACADEMIC BOARD - **EMERITUS PROFESSOR JOYCE KIRK**

The Analytics Institute of Australia develops graduates who will shape our future, and who will thrive in it.

We live in a world where data, technology and artificial intelligence developments grow exponentially. For many, this can be overwhelming; yet our futures are radically altered by decisions made now.

The Institute's academic programs are designed to ensure those decisions are based on thorough data analysis, agile thinking, sound logic, and ethical principles.

Featuring up to date technology, world leading software, and work integrated learning, the Institute's learning and teaching environment is transformative. Our graduates understand data, how to protect it, how to analyse it, and how to communicate and use it for decision-making.

WELCOME FROM THE CHAIR OF THE INDUSTRY ADVISORY BOARD - **PROFESSOR PHIL BOLTON**

As organisations grapple with the exponential growth of data, and the possibilities this represents, they will need access to the best analytics skills possible to make better and more informed business decisions.

I'm proud to be part of this Institute which aims to arm some of the best Analytics and Transformation talent in the country with the necessary skills to navigate this fast paced data and analytics world.



GRADUATE ATTRIBUTES

AIA aims to produce graduates with the attributes to help them thrive in employment, running their own business, or completing further study:

Analytical thinker	Graduates will demonstrate their: <ul style="list-style-type: none">• mastery of a broad and coherent body of analytical and quantitative concepts.• ability to review critically, analyse and apply data and different analytics to support decision making and drive change.• ability to generate insights from data intelligence to inform organisational transformation.
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Systems thinker	Graduates will demonstrate their understanding of systems thinking through engaging with different organisational processes and functions and detailing complex organisational issues
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Ethical, socially responsible and adaptive 21st-century citizen	Graduates will demonstrate their capacity to: <ul style="list-style-type: none">• act ethically in the digital era• respect the privacy of individuals and businesses in data gathering and analysis,• respect human diversity and the environment• contribute to society• interpret and respond to relevant legislation
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Independent lifelong learner	Graduates will demonstrate a commitment to continual learning, intellectual and skills development through seeking and engaging in new technology and knowledge
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Communicator and Collaborator	Graduates will demonstrate the: <ul style="list-style-type: none">• ability to communicate and collaborate effectively in a range of professional contexts
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Creative and Innovative problem-solver	Graduates will demonstrate: <ul style="list-style-type: none">• innovation and creativity when applying their knowledge and skills in problem solving• creative and technology approaches in creating new business propositions• demonstrate intrapreneurship and entrepreneurship in resolving business problems.
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BACHELOR OF ANALYTICS

COURSE INFORMATION

Course Learning Outcomes

The Bachelor of Analytics is an AQF level 7 qualification that provides students with the knowledge and skills to evaluate and apply the different analytic tools that support evidence-based business decisions, including organisational transformation. The course prepares students in using advanced data modelling tools in preparation for future jobs and a continually changing business world.

Specifically, this course is designed as follows:

- **Level 1:** Units provide students with a good foundation on the key concepts and knowledge on how organisations operate in a digital world as well as the different forms of analytics.
- **Level 2:** Units prepare students to use different analytics models and tools to create business value.
- **Level 3:** Units prepare students to communicate and implement a digital strategy in an ethical way.

On the completion of this course, students will be able to:

1. Select and apply the most appropriate data modelling tools to review, critically analyse and translate big data into business intelligence, drawing on their broad understanding of the context.
2. Demonstrate an in-depth understanding of the role of data analytics in systems thinking to inform complex business decisions.
3. Engage effectively and professionally in a workplace, demonstrating the ability to (a) collaborate within a team, (b) communicate clearly, coherently and independently.
4. Demonstrate innovation and creativity, critical thinking, and professional judgement in analysing data to identify and solve problems.
5. Engage with complex business scenarios to examine the professional and ethical implications in areas including privacy, data management, and the use of machine learning to inform business decisions.
6. Demonstrate engagement in independent learning, maintaining currency and undertaking continuing professional development in their field.



Employability and Practitioner Skills

Graduates from the Bachelor of Analytics will be highly employable. They will experience work integrated learning in their study program and have the opportunity to demonstrate their skills in an industry placement in their final year. They will be able to apply data modelling tools and analytics to solve problems, make business decisions and provide business intelligence and marketing insights in a professional context. They will be able to demonstrate to employers from day one what they can do. In many instances they will be more advanced in their understanding of analytics and business intelligence technologies than their employers. And some graduates will quite quickly become successful entrepreneurs themselves, confident to navigate through a fast-changing world where the old rules no longer apply.

AIA graduates will combine creative and innovative problem solving with analytic skills to meet the emerging demands of businesses that will survive and thrive in the 4th Industrial Revolution.

Academic Staff

Our community of international faculty is dedicated to creating an engaging, rigorous and practical educational experience for students. With our academic staff and our industry-experienced experts, students will gain expert knowledge about analytics, inspiring them to appreciate, and adapt to working in, a rapidly changing business environment. Our staff will help you to gain confidence in making decisions. Their expertise is relevant, up to date, and they will inspire you to find creative and innovative ways to apply the knowledge you acquire.

Course Overview



COURSE NAME

Bachelor of Analytics



COURSE CRICOS CODE

111123K



DURATION

Full-time 3 years (24 units) (maximum completion time allowed: 8 years)
Fast track 2 years (24 units) (if required units are scheduled) (maximum completion time allowed: 6 years)



STUDY MODE

On-Campus (Melbourne)



CAMPUS LOCATION

Part Level 10,
601 Bourke Street,
Melbourne VIC Australia 3000



Course Completion Requirements

There are 24 units in the course and on successful completion of each unit the student will gain 10 credit points. Therefore, to complete the entire course successfully the student will be required to pass all 24 units and gain 240 credit points.

Unit Type	Required Units	Credits
Core	24	10 each
Total	24	240

SAS Certification

The Bachelor of Analytics incorporates leading industry software and materials from SAS Analytics. SAS software is used to demonstrate theoretical concepts, SAS datasets are used as case studies and SAS material is used to supplement lectures and tutorials.

Completion of ANA 102 Tools for Data Exploration, ANA 103 Data Analytics Fundamentals, ANA 202 Visual Analytics, ANA 204 Predictive Analytics, and ANA 302 Consumer Analytics will satisfy the requirements for the SAS Academic Specialisation in Analytics.



Academic Calendar

The current [Academic Calendar](#) is available on the AIA website.



BACHELOR OF ANALYTICS

COURSE MAP - progression through the course

Units shown in typical trimester of study for a full-time student.

Pre-requisites must be satisfied before unit enrolment.

Pre-requisites are shown in brackets and an *.

Units may be timetabled in different trimesters than those shown below:

TRIMESTER 1	BUS101 The Macroenvironment in Business	ANA101 Fundamentals of Business Statistics	BUS103 Strategic Management	WIL102 Work Integrated Learning (Foundation)
TRIMESTER 2	BUS102 Fundamentals of Management	ANA102 Tools for Data Exploration	ANA103 Data Analytics Fundamentals	ANA104 Database for Business Intelligence
TRIMESTER 3	ANA105 Data Analytics with R	BUS201 Disruption and the Fourth Industrial Revolution	ANA201 Statistical Applications in Data Science (*ANA101)	ANA203 Data Wrangling and Analysis with Python (*ANA101, ANA103)
TRIMESTER 4	ANA204 Predictive Analytics (*ANA101, ANA103)	BUS203 Project Management	BUS205 Digital Ethics	ANA202 Visual Analytics (*ANA101, ANA102)
TRIMESTER 5	BUS304 Communication and Data Storytelling (**ANA202)	ANA301 Social Media Analytics (*ANA103)	ANA303 Analytics Project 1 (*ANA101, ANA105, ANA202, ANA204)	EP201 E-Portfolio A
TRIMESTER 6	ANA304 Analytics Project 2 (*ANA101, ANA105, ANA203, ANA204)	ANA302 Consumer Analytics (*ANA103)	EP301 E-Portfolio B	WIL302 Work Integrated Learning (Capstone) (*All Level 1 and 2 units)

Pre-requisite shown *

Preferred units done**

All units are core.

Each unit is 10 credit points (Course total 240 credit points)



UNIT OUTLINES

BUS 101: The Macroevironment in Business

(No pre-requisite units)

In this unit, students will learn the six major macro-environment forces that affect all businesses and their business strategies. Through case study analysis, group discussion and research work, students will investigate how these forces shape opportunities, but also pose threats to a business.

The unit prepares students with the concepts and knowledge to conduct due diligence and identify implications shaped by these uncontrollable environment forces, particularly when seeking entry into a new country.

ANA 101: Fundamentals of Business Statistics

(No pre-requisite units)

The purpose is to introduce fundamental statistical concepts and techniques with a wide range of real-life practices and hands-on tutorials to students who want to engage in a data-centric career. Topics covered in this units include basic statistical measures and graphics, data exploration techniques, fundamental probability and probability distributions, sampling distributions, confidence intervals, hypothesis testing, correlation, group comparison, simple linear regression, and Chi-Square test.

ANA 102: Tools for Data Exploration

(No pre-requisite units)

Exploratory Data Analysis (EDA) is the critical process of conducting preliminary investigations conducted on data to assess the data quality, to understand variables, to discover the distribution of data, to identify and treat anomalies, to discover association and patterns, and to transform the data for advanced analysis tasks. The purpose of the unit is to equip the students with essential knowledge and skills of performing data exploration in a code-free environment with widely adopted tools such as MS Excel, SAS, Power BI and Tableau. Upon finishing this unit, students will be comfortable to adopt appropriate tools to facilitate the data exploration processes and communicate with non-technical audiences with the findings and insights generated from the analysis.



WIL 102: Work Integrated Learning (Foundation)

(No pre-requisite units)

This foundation unit in the Bachelor of Analytics is a professional preparation and development seminar series that introduces students to the work integrated learning (WIL) approach of the course. Over the first trimester students will engage with academics and industry guests to understand the key skills, behaviours, and workplace competencies that define the best professionals and most sought-after employees. Students will also learn about the diverse and standards of digital ethics and sustainability, how to conduct their academic studies with discipline and excellence, and how to engage effectively with peers and colleagues in professional contexts. Over the course of the unit, students will establish the foundations of their WIL capstone project or placement, understand how the different units and learning experiences throughout the course operate as a coherent whole, and prepare to move into the workforce after their studies as a motivated, focused, capable professional.

The WIL capstone projects (WIL 302) will be unique and tailored to meet the student's learning needs and objectives, and the characteristics and requirements of the host partner organisation. This preparatory seminar series will allow students to not only develop their ideas and aspirations for the capstone but engage with a range of industry practitioners and potential Corporate Mentors.

In each weekly session there will be a seminar on specific topics ranging from academic skills to workplace behaviours and presentation, change management, and inter-cultural business communications. In addition, industry leaders from different organisations will provide guest presentations and discussion, and there will be a workshop period during which students will complete group and individual activities and scenario exercises.

BUS 102: Fundamentals of Management

(No pre-requisite units)

In this unit, students will learn about the theory of management in a contemporary business environment. Using case studies, role play and in-class discussions, students will investigate how different organisational functions related to one another and key areas of management practice.

Specifically, students are required to apply analytical skills and knowledge gained from this unit to management problems and team-work.

This unit is essential to prepare students for advance level units in this course, covering critical business transformation processes as a result of a new strategy or change in strategy.



ANA 103: Data Analytics Fundamentals

(No pre-requisite units)

This unit introduces an overview of the concepts, processes, life cycle, and functions of data analytics as an enabler of decision-making processes in business settings. It aims at preparing students without a programming background to begin investigating, identifying, and tackling workplace problems with data-centric problem-solving skills. Descriptive analytics, diagnostic analytics, predictive analytics, and prescriptive analytics are introduced in line with the data analytics process starting from data collection and evaluation to knowledge and insight generation. Upon completion of this unit, students will have an overall understanding of how data analytics enhances the business intelligence capabilities of organisations and be able to apply practical hands-on skills to tackle business problems with appropriate analytical solutions. The unit also emphasizes effective communication skills with non-technical audiences by introducing the principles and techniques of data visualisation.

ANA 104: Databases for Business Intelligence

(No pre-requisite units)

The purpose of this unit is to introduce the fundamental concepts of relational databases and build up database programming proficiency for students with no programming background required. This course is intended to prepare the students with hands-on skills to work with a database focusing on data analytics needs. Upon the completion of this unit, students will have the working knowledge of databases and SQL (Structured Query Language) in a data science environment. Students will learn how to access, design, create, query, explore and analyze data from the database instances using to work with real-world dataset provided on a relational database (DB: MS SQL Server or MySQL + Excel). Advanced concept of transaction management, data integrity, Data Warehousing (DW) and online analytical processing (OLAP) services are introduced to give students an overview of how variations of data storage platforms facilitate the data-driven decision-making processes in the business context.

ANA 105: Data Analytics with R

(No pre-requisite units)

R is an open-source software environment for statistical computing, machine learning and data graphics which is widely used by statisticians, business analysts and data scientists. This unit aims to provide a practical introduction to the R programming language for beginners through numerous real-life data and case studies. Students will be able to perform essential analytics tasks in the R environment, including reading and writing data, exploring and manipulating data, analyzing data with statistical tools, presenting and communicating data with a variety of graphics, and conducting fundamental linear regression analysis.



BUS 103: Strategic Management

(No pre-requisite units)

In this unit, students will learn about the role of strategy in ensuring organisational success. The unit will examine the concepts and theoretical frameworks in the strategic management process. Through this unit, students will acquire the skills and knowledge of the different types of strategy formulation, implementation, and strategic outcomes.

The unit provides students with the fundamental knowledge to inform business transformation relating to a chosen strategy in the advance year of this course.

BUS 201: Disruption and the Fourth Industrial Revolution

(No pre-requisite units)

The world is in a time of extraordinary change and upheaval. Society faces unprecedented disruptions resulting from rapid technological development, extreme and accelerating environmental crisis, and high-stakes political contests. The nature and role of business are changing, and organisations must find new ways to address to social and environmental priorities while building economic and cultural value.

The convergence of digital, mechanical, and biological technologies provides extra ordinary new opportunities for business innovation. Robotics, advanced computing, internet connectivity, bio- and nanotechnology, machine learning, and decentralisation are among the 21st Century tools that are changing how we live, work, and trade. The Fourth Industrial Revolution - or Industry 4.0 - is a period of rapid and significant change across industries including manufacturing, energy, finance, transport, textiles, healthcare, real estate, and security.

This unit explores the concepts, principles, goals, challenges, and opportunities of the Fourth Industrial Revolution from a strategic management perspective. Students will investigate cutting-edge ideas and use key business management tools to conduct analysis of Industry 4.0 business opportunities. The unit will also consider critical perspectives and trade-offs in the Fourth Industrial Revolution - who loses, who wins, what changes, and how can we ensure that innovation contributes to future social and environmental sustainability?

ANA 201: Statistical Application in Data Science

(Pre-requisite: ANA 101 Fundamentals of Business Statistics)

This unit addresses the course learning outcomes and complements other units in a related field by developing student's specialised knowledge of statistical tools and technologies. The purpose is to build upon ANA 101 Fundamentals of Business Statistics and provide students with an overview of the statistical applications in business domains. Students will obtain hands-on experiences in SAS to conduct fundamental analytics practices with an abundant collection of case studies, tutorials, and online discussion activities. Upon finishing this unit, students will be able to critically review the analytics options with the identified needs and problems in the business domain and choose the most applicable ones. They'll also learn to plan and implement statistical analytics projects in a systematic and strategic approach.



ANA 202: Visual Analytics

(Pre-requisites: ANA 101 Fundamentals of Business Statistics, ANA 102 Tools for Data Exploration)

This unit introduces the essential techniques and principles of data visualisation to reveal the patterns and associations of the data. Students will learn to develop and apply analytical thinking and graphics techniques to facilitate analytical reasoning and decision-making processes. Upon finishing this unit, students will have a solid understanding of the component of data graphics, principles of choosing the right chart, advanced graphics type, interactive dashboard design and professional reporting with visualisation tools. The unit is delivered with a variety of business cases and hand-on practices on SAS, a globally widely adopted analytical and AI system.

BUS 205: Digital Ethics

(No pre-requisite units)

Digital technologies and applications have fundamentally impacted all aspects of business and society. Organisations and individuals face increasing risks in acquiring, securing, and maintaining personal and cooperate information. Technology innovators and business professionals must manage information ethically to gain competitive advantage with the digital shift. This unit aims to familiarise students with the ethical challenges and the best practices in the context of applying computer and information technologies. Upon finishing this unit, students will be able to understand and apply the knowledge of digital ethics to practice business operations professionally and live an ethical life with the global online communities.

BUS 203: Project Management

(No pre-requisite units)

This Unit introduces students to the concept of project management and the principles behind effective project management. Students will learn about the features of a project work plan and will be equipped with the knowledge and skills to develop a project management plan. Students will also acquire the ability to evaluate the success of a project in a business environment.



ANA 203: Data Wrangling and Analysis with Python

(Pre-requisites: ANA 101 Fundamentals of Business Statistics, ANA 103 Data Analytics Fundamentals)

The purpose of this unit is to lay the programming foundation using Python for beginner students focusing on data analytics applications in business environments. This unit introduces the fundamental concepts of programming including development environment, data structure, logic flow control, built-in operations and functions and fundamental Object-Oriented programming principles using real-life cases under contemporary business settings. Additionally, to prepare students to start working in the data-intensive industry, two of the most popular python libraries, NumPy and Pandas are introduced and practised. Data visualisation techniques using Matplotlib and Seaborn are also introduced to enhance communication skills with non-technical audiences and managers.

ANA 204: Predictive Analytics

(Pre-requisites: ANA 101 Fundamentals of Business Statistics, ANA 103 Data Analytics Fundamentals)

Predictive Analytics is the use of data, statistical algorithms and machine learning techniques to produce actionable knowledge from historical data to facilitate the decision-making in organisations. This unit aims to equip students with the fundamental knowledge and skills of performing appropriate predictive analytics methods targeting business needs. Topics include fundamental business analysis concepts, processes, essential tools and methods for predictive analytics, data preprocessing, principal component analysis, clustering, regression and association analysis. Besides the theoretical knowledge, students will learn to apply the practical skills through real-life study cases and gain hands-on experiences with SAS, one of the most widely adopted software and services for analytics, Artificial Intelligence, Data Management and Visualisation.

EP 201: E-Portfolio A

(No pre-requisite units)

In the final trimesters of their course, students will develop an online portfolio to showcase their work, reflect on their learning, and engage with peers to give and receive constructive, critical feedback.

The two ePortfolio units (EP 201 and EP 301) are designed to demonstrate how students have achieved the course graduate attributes. EP 201 is focused on student learning through the first trimesters of their course and serves as an opportunity to celebrate collaborative projects, individual achievements, and the learning journey.



The EP 201 ePortfolio is focused on development and reflection (Slepcevic-Zach & Stock, 2018). EP 301 looks forward and establishes the student's professional identity and presence to provide a platform for them to connect with employers, build networks, and launch their career. The online work is extended and modified to offer an outward-facing presentation ePortfolio (Slepcevic-Zach & Stock, 2018).

In EP 201 students will reflect on how their learning to date has enabled them to become graduates with the following attributes:

1. Analytical aptitude and appetite
2. Systems thinking
3. Digitally ethical, socially responsible and adaptive 21st-century citizens
4. Independent and lifelong learner
5. A strong communicator
6. Creative and innovative problem solver

BUS 304: Communication and Data Storytelling (Prefer ANA 202 Visual Analytics completed)

Data science is growing up fast. However, companies are not getting the value they could through data sciences. Research has shown that executives complain about data science not giving them the guidance they looked for. At the same time, data scientists lament about business decision makers oversimplify or misunderstand their analysis.

In this unit, students will learn the ability to employ critical concepts for effective business communication to a wide range of audiences. Through role-plays, presentations, report writings using data visualisation techniques learnt in the earlier part of the course, this unit prepares students to be an effective communicator in a data-driven environment

ANA 301: Social Media Analytics (Pre-requisite: ANA 103 Data Analytics Fundamentals)

Social Media Analytics refers to the process of collecting and analysing data from social network platforms such as Twitter, Facebook, Instagram and LinkedIn. This unit aims at providing an overview of the framework, processes, methods and tools of social media analytics for students preparing to start a data-centric career. Upon finishing this unit, students will gain essential knowledge of how social media analytics helps to derive insights and values by detecting, tracking, analysing, and profiling people and the interactions of people in the digital environment. They will also develop hands-on skills of applying proper tools and techniques for data collection, social network analysis, social data visualisation, basic opinion analysis using text analytics. Besides analytical and technical skills, students will also learn to communicate effectively in a variety of means to convey insights from social media analytics practices.



ANA 302: Consumer Analytics

(Pre-requisite: ANA 103 Data Analytics Fundamentals)

Consumer analytics or customer analytics is the use of analytics techniques to understand the composition, demands, satisfaction and behaviours of the customer, so that effective business decisions can be made through market segmentation and predictive analytics. The purpose of this unit is to equip the participants with the fundamental knowledge and skills of customer analytics with practical tools and case studies. Upon finishing of this unit, students will be able to perform essential analytics tasks systematically to share critical insights characteristics, and trends of the customer to improve customer relationship and experiences, facilitate decision-making processes and contribute to business growth.

ANA 303: Analytics Project 1

(Pre-requisites: ANA101 Fundamentals of Business Statistics, ANA 105 Data Analytics with R, ANA 203 Data Wrangling and Analysis with Python, ANA 204 Predictive Analytics)

This unit provides the students with the essential knowledge and techniques to successfully manage analytics project with industry exposure. The project may be industry-based or may be an industry-relevant project offered in-house. For in-house projects, industry exposure will be provided through mentors with industry experience who will simulate an industry-client environment for the project. Project topics require the written approval of a Project Review Panel. Approval will be given only if the panel is assured that the project is completed successfully, will meet the learning outcomes of the unit. An industry-based project may have an industry supervisor from whom the unit coordinator will seek input during the marking of the assessment tasks prescribed in Section 2.

Students will learn to align the business needs with the analytics projects and go through the stages of the project management life cycle in a pragmatic approach, including business requirement analysis, project scoping, project plan, client expectation management, project development, client checkpoint review, project review and project delivery. Students will gain team working experiences through learning activities, including team meetings, meetings with the industry supervisor, contributing to group reports and presentations. They will also learn to tackle complex analytics problems with the guidance of industry supervisor and the unit lectures in a group environment while maintaining personal autonomy and accountability.



ANA 304: Analytics Project 2

(Pre-requisites: ANA101 Fundamentals of Business Statistics, ANA 105 Data Analytics with R, ANA 203 Data Wrangling and Analysis with Python, ANA 204 Predictive Analytics)

This unit provides the students with the essential knowledge and techniques to successfully manage the business project with industry exposure. The project may be industry-based or may be an industry-relevant project offered in-house. For in-house projects, industry exposure will be provided through mentors with industry experience who will simulate an industry-client environment for the project. Project topics require the written approval of the Project Review Panel. Approval will be given only if the panel is assured that the project is completed successfully, will meet the learning outcomes of the unit. An industry-based project may have an industry supervisor from whom the unit coordinator will seek input during the marking of the assessment tasks.

Students will learn to align the business needs with the project components and go through the stages of the project management life cycle in a pragmatic approach, including business requirement analysis, project scoping, project plan, client expectation management, project development, client checkpoint review, project review and project delivery. Students will gain team working experiences through learning activities, including team meetings, meetings with the industry supervisor, contributing to group reports and presentations. They will also learn to tackle complex analytics problems with the guidance of industry supervisor and the unit lectures in a group environment while maintaining personal autonomy and accountability.

EP 301: E-Portfolio B (No pre-requisite units)

In the final trimesters of their course, students will develop an online portfolio to showcase their work, reflect on their learning, and engage with peers to give and receive constructive, critical feedback.

The two ePortfolio units (EP 201 and EP 301) are designed to demonstrate how students have achieved the course graduate attributes. EP 201 is focused on student learning through the first trimesters of their course and serves as an opportunity to celebrate collaborative projects, individual achievements, and the learning journey.

The EP 201 ePortfolio is focused on development and reflection (Slepcevic-Zach & Stock, 2018). EP 301 looks forward and establishes the student's professional identity and presence to provide a platform for them to connect with employers, build networks, and launch their career. The online work is extended and modified to offer an outward-facing presentation ePortfolio (Slepcevic-Zach & Stock, 2018).



In EP 301 students will develop their ePortfolio into a future-oriented professional profile that employers and colleagues can explore to understand their character, values, accomplishments, knowledge base, and skills. The ePortfolio will feature details of the Work Integrated Learning Capstone experience, offer a Professional Showcase of the student's work, highlight a career path after graduation, and serve as a rich tool for professional engagement.

Students will work independently and participate in a weekly seminar discussion and consultation to ensure key topic areas are covered and there are regular opportunities to consult, engage with peers, and demonstrate progress.

WIL 302: Work Integrated Learning (Capstone)

(Pre-requisite: All Level 1 and 2 units)

The capstone unit in the Bachelor of Analytics is a work integrated learning (WIL) professional placement or internship. Each WIL project will be unique and tailored to meet the student's learning needs and objectives, and the characteristics and requirements of the host partner organisation. Professional placements are undertaken during the final trimester (or two trimesters part-time) of the Bachelor of Analytics. Students must negotiate the scope and outcomes of the project with the WIL Unit Coordinator and secure an Academic Supervisor and a Corporate Mentor prior to commencing.

Contact hours will vary according to the details of the placement but will align with the expected commitment of a 10-point unit, meaning around 12 hours each week over 12 weeks, or equivalent, up to 170 hours. All placements will involve three key components: (1) completion of online learning tasks to ensure the student is prepared for professional activities and conduct (10 hours); (2) direct contact experience with a host organisation (approximately 120 hours); and (3) individual preparation, reflection, and assessment (approximately 40 hours). Some placements may require additional compulsory orientation and induction activities.

The capstone Placement is designed to build and demonstrate professionalism, collaborative abilities, application of theoretical knowledge and disciplinary skills, analysis of and critical reflection on professional activities and learning experiences, and the ability to communicate clearly and professionally in a range of formats.



STUDENT IT REQUIREMENTS

A newer Windows desktop (with monitor, mouse and keyboard) or laptop, preferably less than about 4 years old.

OPERATING SYSTEM (OS) REQUIREMENTS

- Windows 10 or above
- Apple mac OS 10.10 or above

greater systems will also work, except for some specialized software. Other operating systems may work but are not supported.

APPLICATION REQUIREMENTS

- Microsoft Office 2021 (Microsoft Office 365 has a free web version with fewer features and students may be able to access the full version for free with their student email address* Subject to Microsoft rules which may change)
- Security Software (Anti-virus/firewall).
- Web Browsers: Firefox (preferred), Safari 8 or greater, Edge, Google Chrome.

INTERNET REQUIREMENTS

- Preferably high-speed ADSL, Cable, or similar.
- Recommended Internet Bandwidth and Connection Speed Media-rich online courses:
Internet Download Speed: 5.0 Mbps

REQUIRED SOFTWARES

- Python 3.7
- PowerBI
- Tableau
- DBeaver / SQL Management Studio / Azure Data Studio
- Remote Desktop Client



ASSESSMENT

The units in the Course are assessed through continuous student evaluation. At the start of each Unit, the Unit Convenor provides students with a written document (Unit outline) explaining assessment forms and their direct relevance to the learning outcomes for that Unit. The Unit outline will be uploaded on the Learning Management System (LMS). Typical assessment types include Individual and Group Assignments, Presentations, Case Studies, Reports, Quizzes, Journals and Reflection exercises, Problem Solving exercises, Projects and Exams (Mid Trimester and End of Trimester Examinations).

Each Unit in the Course is designed to help students achieve the prescribed learning outcomes as well as develop essential academic and professional skills such as writing, editing, research, analysis, listening and teamwork. The overall assessment regime has been approved by and is continuously monitored by the AIA Academic Board.

Students will receive timely and constructive feedback on all progressive forms of assessment to assist their learning and preparation for future assessment. All assessment results will be held in the AIA records system on the Student Management System.

AIA has engaged several quality assurance, moderation, validation and benchmarking measures to ensure its assessment processes are fair and accurate. Moderation is both internal and external using leading academics from other institutions, and benchmarking is against institutions of similar standing to AIA. Assessment outcomes are validation through our own Academic Board.

At the end of each trimester students are encouraged to provide feedback on Unit content and academic staff performance, and any feedback on the form and effectiveness of assessment is welcome at that time.

Individual and Group Assignments

Consistent feedback from employers confirms their strong expectation that graduates have highly developed teamwork skills. AIA recognises this, and students will gain knowledge on the dynamics of good teamwork as well as having many opportunities to practice and refine their skills.

Assignments may be designed for either individuals or groups. Normally, the outcome of an assigned task will be summarised in three or four type written pages. If exhibits, project reports or models are constructed, these are to be explained within the page limit. A lecturer will assess an assignment more highly where the topic is treated in depth and statements are well documented, as opposed to a superficial treatment and data-free conclusions. When an individual or group selects the topic for the assignment, the choice of topic is an important consideration in the assessment.



The assignment will be expected to include a specific statement concerning the topic, the reason for choosing that topic, as well as an in-depth analysis of the topic. It will end with a set of conclusions drawn from the analysis and the reasons for these conclusions. In most Units where group work is prescribed, there may be an element of peer evaluation in the overall assessment scheme. This element will be moderated by the lecturer to limit dysfunctionality and bias.

In some cases, individuals or groups are required to present their findings to the class.

Assessment Submission

Assignments must be submitted on time. Extensions for deadlines may be granted only in extreme circumstances. The decision to grant or refuse an extension is made by the Unit Convenor in coordination with the Course Convenor. Requesting an extension does not guarantee that it will be granted.

Every assignment, whether as hard or soft copy, must use the appropriate front-page template. Assignments without front page details will not be accepted. Students will receive a soft copy of the template via email from the Unit Convenor

Exams (Mid and End of Trimester)

Exams at AIA will be in written form and invigilated. In some Units, there may be two exams, the first is often held midway through a trimester (midterm exam), and the second at the end of the trimester (final exam). The exams typically include short essay responses to material covered in lectures or readings.

Conduct of Examinations

All examination arrangements are handled by the AIA Student Administration. Formal examination notification giving details of the examination schedule, venue and seating arrangement will be forwarded to the students approximately two weeks before the scheduled date of the exam. Exams may be held during the day, in the evenings or even on weekends, and a student should check the examination schedule carefully.

Students are not permitted to approach the Unit Convenor/ Course Convenor directly to reschedule exams or to make special accommodations. Any rescheduling request needs to be submitted in writing to AIA Student Administration, clearly stating the reasons for such a request and detailing any requests for special assistance. Only in extenuating circumstances, such as a medical emergency, will students be permitted to reschedule a final exam. In that case, the rescheduled exam will take place in the Deferred Examination period.

Further information is contained in [Assessment and Grading Policy and Procedures](#)



Release of Academic Results

All grades are posted on Canvas (LMS), including progressive assessment results posted by academic faculty. Each student's interim mark for the final assessment by the Course Convenor and overall course grade will be posted on Canvas, following submission of final assessment marks by the Unit Convenor and subsequent progression through moderation and validation processes and Academic Board review. Final grades are declared after ratification by Academic Board. In the unlikely event of any changes to interim grades, these will be advised to students by the Dean of Students

CLASS ATTENDANCE

Attendance requirements

Students have a responsibility to organise their study program and to take learning engagement seriously.

Students are expected to be regular and punctual in attendance at all classes in face-to-face units in which they are enrolled, and/or to regularly engage in online activities.

Students are expected to engage in the learning activities and assessment tasks outlined in the Units in which they are enrolled by the deadlines published in the unit outline and information.

It is the student's responsibility to read the unit outline before the unit commences to ensure that they are familiar with any specific attendance requirements for that unit.

There are compulsory or minimum levels of attendance prescribed for the WIL Capstone unit.

In the case of absence or lack of learning engagement due to illness or for some other unavoidable cause, students may need to apply for an extension consistent with the relevant policy (see notes below).

Students are expected to be 'genuine students' and if at any time they are deemed not to be, they may be required to meet with the Course Convenor in regard to their learning engagement and to show cause why they should not be administratively withdrawn from the relevant unit/s or course.

Further information is contained in [Assessment and Grading Policy and Procedures](#), [Attendance Policy \(Online and On-campus Learning\)](#), and [Fees, Charges and Refund Policy](#).



Class Participation

Communication with a diverse range of people is a fact of daily business life. Therefore, verbal and presentation skills are given a high priority at AIA. The classroom is considered a laboratory where students practice persuading their peers and defending their ideas. This style of learning fosters a discovery-driven mindset and builds important analytical and decision-making skills.

Some characteristics of effective class participation include:

- Points made are helpful in increasing understanding
- Comments consider ideas offered by others
- Comments show evidence of a thorough reading and analysis of the case
- The participant distinguishes among different kinds of data such as, facts, opinions, assumptions, and inferences
- The participant interacts with other members of the class by asking questions and challenging conclusions

TUITION AND NON-TUITION FEES

Tuition Fees: Please refer to the Signed Offer Letter/ [AIA Website](#) for more details

Non-Tuition Fees: Please refer to Fees & Charges on [AIA Website](#) for more details



KEY POLICIES AND PROCEDURES

Admission and Enrolment

This policy applies to all applications for admission to undergraduate and postgraduate courses at Analytics Institute of Australia (AIA) for prospective domestic and international students.

Please refer to [Admission and Enrolment Policy and Procedure](#) for more information

Deferral

This policy describes the deferral procedures before and after a student has enrolled in a Course. Deferral will not be granted where the applicant intends to undertake another course of study at AIA or another registered higher education provider during the deferral period.

Please refer to [Deferral Policy and Procedure](#) for more information

Fees, Charges and Refund

The purpose of this policy is to provide clear information and guidance about the fee refund process applicable to domestic students and international students, the process for applying for refunds and the circumstances under which refunds will be provided to current and prospective domestic students and international students in Australia. This policy aligns with the requirements set out in the TEQSA Act (2011) and the Higher Education Standards Framework (the Threshold Standards) 2015.

Please refer to [Fees, Charges and Refund Policy](#) for more information

Advanced Standing and Credit Transfer and Articulation

This policy provides the broad policy and framework for articulation, recognition of prior learning (RPL) and credit transfer for all the courses offered. Its purpose is to provide due credit for demonstrated prior learning and outcomes in line with the requirements of each course of study, assist mobility of students eligible to transfer between courses within the AIA and to other institutions, institute clear guidelines and processes for determining credit transfer and articulation to and from the courses without compromising the integrity of each course and ensure standards and integrity of the credit transfer arrangements

Please refer to [Advanced Standing Credit Transfer and Articulation Policy and Procedure](#) for more information



Provider Transfer

This policy applies to international students studying at Analytics Institute of Australia (AIA) in Australia under the Australian student visa system administered by the Department of Home Affairs and regulated under the ESOS Framework. This policy sets out the process for international students in Australia seeking to transfer to or from another registered provider.

Please refer to [Provider Transfer Policy](#) for more information

Tuition Fee Protection

This policy outlines the ways in which students' tuition fees are protected if Analytics Institute of Australia is unable to deliver a course for which tuition fees have been paid. It outlines the alternative arrangements which will be made and the AIA's responsibility for the cost of any alternative or transitional arrangements in the event of provider or course default. It also outlines the procedure how the pre-paid tuition fees for students who have enrolled but not yet commenced studies at Analytics Institute of Australia (AIA) are managed and protected.

Please refer to [Tuition Fee Protection Policy and Procedure](#) for more information

Student Code of Conduct

This Code of Conduct outlines the expectations and responsibilities of all students enrolled at Analytics Institute of Australia (AIA) and should be read in conjunction with the approved policies of the AIA, and in the context of the student's letter of offer of enrolment. This Code applies to all students enrolled with AIA regardless of the mode of study or location.

Please refer to [Student Code of Conduct Policy](#) for more information

Academic Integrity Policy

This policy promotes academic integrity; defines the actions that constitute a breach of academic integrity i.e. cheating, contract cheating and plagiarism; and, describes the Analytics Institute of Australia (AIA) processes for investigating and hearing allegations of contract cheating and plagiarism. It also describes the penalties that will apply, where allegations are proven.

Please refer to [Academic Integrity Policy and Protocols](#) for more information



Student Grievance and Resolution

This policy describes the procedures for student grievance resolution; Analytics Institute of Australia (AIA) has individual academic, administrative, and supervisory avenues for resolution. Should other avenues come into conflict with the Student Grievance and Resolution Policy, this policy overrides all other avenues for resolution. This policy is dedicated to the fair hearing and resolution of all grievances and will discuss with students and staff their familiarity with procedures for dealing with complaints, grievances, and appeals.

Please refer to [Student Grievance and Resolution Policy](#) for more information

Assessment and Grading

The purpose of this policy is to ensure that assessment tasks and marking is valid and reliable and that they ensure the quality of student learning outcomes.

The AIA is committed to effective assessment validation and moderation as an integral part of its assessment procedures and has designed its procedures to ensure common interpretation of Threshold Standards 2015 in relation to student performance across all courses. The Course Convenor moderates the design of assessments and students' performance internally and externally. This is to ensure the validity and reliability of its assessment practices and awarding of grades.

Please refer to [Assessment and Grading Policy and Procedures](#) for more information

Students at-Risk

Student performance will be monitored regularly and "students at risk" will be identified early and supported for early intervention to aim at good progress rates thus increase the completion rates as detailed in the AIA Student at Risk Policy. This also sets out the AIA's mechanisms for timely identifying students who may be at risk of not progressing satisfactorily in a course of study and the processes used to provide targeted and timely support.

Please refer to [Student at-Risk Policy and Procedures](#) for more information



Academic Progression

The Policy provides broad guidelines and framework for all courses on the rules of progression, and course completion. This policy informs the students of the importance of achieving satisfactory course progression and the possible consequences of unsatisfactory course progress.

Please refer to [Academic Progression Policy and Procedures](#) for more information

Student Performance Data

This policy outlines the student performance data for all the courses offered by Analytics Institute of Australia (AIA) so as to ensure that there is sufficient oversight of the collection, timing, accuracy, consistency and effective use of student performance data for each course and across each delivery site. Information relating to student attendance, grades, student performance including progression, outcomes including completion, feedback including complaints and breaches of academic integrity. This policy also enables the monitoring and mitigation of academic risk at the AIA through analysis of student performance data identification of at-risk students, trimester progression and course completion and attrition.

Please refer to [Student Performance Data Policy and Procedures](#) for more information

Student Support

The purpose of the Student Support Policy is to set out the nature and scope of support services available to all Analytics Institute of Australia (AIA) students. This policy outlines AIA's obligations to all higher education students as a registered higher education provider. It details the support processes, mechanisms and services designed for a diverse cohort of students to enable student progression, student achievement of learning outcomes and ultimately enable student success.

Please refer to [Student Support Policy](#) for more information

Student and Academic Staff Feedback

This policy relates to all Analytics Institute of Australia (AIA) students enrolled in degree courses leading to an AQF qualification and related academic and administration staff. The policy provides a framework for seeking and reporting feedback from academic staff and students on their perceptions of the quality of AIA's operations.

Please refer to [Student and Academic Staff Feedback Policy](#) for more information



Academic Freedom and Free Intellectual Inquiry

This policy articulates Analytics Institute of Australia (AIA) commitment to the protection and promotion of academic freedom and free intellectual inquiry within the AIA. This policy applies across the AIA, all students and staff, visitors, and campus. The protection of academic freedom and free intellectual inquiry and the responsibilities associated with these academic rights apply to everyone in the AIA community.

Please refer to [Academic Freedom and Free Intellectual Inquiry Policy](#) for more information

Learning Resources

This policy is intended to ensure that staff and students of the Analytics Institute of Australia (AIA) have access to a range of relevant, current, and appropriate learning and academic resources to support their study, development, and scholarly endeavors.

Please refer to [Learning Resources Policy](#) for more information

Critical Incident

Analytics Institute of Australia (AIA) Critical Incident Policy lays out the procedures and actions to be taken in the event of a serious incident that involves AIA students, staff members and visitors. A critical incident is a traumatic event, or the threat of such which causes extreme stress, fear or injury and has the potential to affect the safety and well-being of AIA students, staff, faculty or visitors in a dangerous or tragic way.

Please refer to [Critical Incident Policy and Procedures](#) for more information

Student Equity, Diversity and Fair Treatment

The purpose of the Student Equity and Diversity and Fair Treatment Policy is to articulate Analytics Institute of Australia (AIA) commitment to promote and support an environment which values and affirms equal opportunity, diversity and inclusivity in accordance with universal principles of equity, fairness and social justice, whilst ensuring that the AIA complies with its legal responsibilities in accordance with relevant legislation.

Please refer to [Student Equity, Diversity and Fair Treatment Policy](#) for more information



Student Information Protection and Access

This policy establishes a framework for the management and handling of student information and records which protects the privacy of students and promotes the responsible handling of student information by staff. It also establishes procedures through which a student may access his or her personal information, or make a complaint in respect to loss, misuse, or unauthorised disclosure or access of information about them.

Please refer to [*Student Information Protection and Access Policy*](#) for more information

Sexual Assault and Sexual Harassment - Students

This policy outlines Analytics Institute of Australia (AIA) stance and general approach to matters of sexual misconduct applies to AIA students at the campus. It is not limited to AIA campus or teaching or study hours. It also extends to all functions and places where students interact.

Please refer to [*Sexual Assault and Sexual Harassment - Students Policy*](#) for more information

Graduation and Award Conferral

This document sets out the Analytics Institute of Australia's (AIA) procedure for conferral of a formal academic award and the protocols for receiving graduation documents and attending the graduation ceremony.

Please refer to [*Graduation and Award Conferral Procedure*](#) for more information

Information Management Security

This policy outlines the obligations on staff, students and authorised third parties of the Analytics Institute of Australia (AIA) who access and use the AIA's Information Management Systems to maintain security of the network and data.

Please refer to [*Information Management Security Policy and Protocols*](#) for more information



LOCATION

Part Level 10, 601 Bourke St
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AIA Campus

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